



APR 28 2006  
S. ZELW

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Claude Scher et al.

Serial No.: 10/064,128

Group Art Unit: 2857

Filed: June 13, 2002

Examiner: Charioui, Mohamed

Title: DIAGNOSTIC SYSTEM FOR A DATA ACQUISITION SYSTEM

Atty. Docket No.: 125755 (GEMS 0160 PUS)

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June 9, 2006  
(Date of Deposit)

Jo Anne Croskey

  
(Signature)

APPEAL BRIEF

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The following Appeal Brief is submitted in response to the Final Office Action dated January 11, 2006, and the Notice of Appeal filed April 10, 2006, in the above-identified application.

06/12/2006 FMETEK11 00000097 070845 10064128

01 FC:1402 500.00 DA

**I Real Party in Interest**

The real party in interest in this matter is GE Medical Systems Global Technology Company, LLC in Waukesha, Wisconsin (hereinafter "GE"), which is the assignee of the present invention and application.

**II Related Appeals and Interferences**

There are no other known appeals or interferences, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III Status of the Claims**

Claims 1-23 are currently pending. Claims 1-23 stand under final rejection, from which this appeal is taken. A copy of the claims on appeal is attached as an Appendix A.

**IV Status of Amendments**

In the Response of July 18, 2005, the independent claims 1, 7, and 16 were amended in response to the Final Office Action of May 18, 2005. In the July 18<sup>th</sup> Response and in the Response of November 3, 2005, which was submitted with respect to the Non-Final Office Action of August 5, 2005, remarks were provided for the allowance of all currently pending claims. There have been no amendments filed subsequent to the July 18<sup>th</sup> Response.

**V Summary of Claimed Subject Matter**

By way of summary, the present invention is directed to diagnostic systems and to a method of operating the same, as recited in independent claims 1, 7, and 16. Claims 1, 7, and 16 encompass several points of novelty, and since claims 2-6, 8-15, and 17-23 depend from claims 1, 7, and 16, respectively, they also contain at least the same points of novelty as that of claim 1, 7, and 16. Independent claims 1, 7, and 16 are similar and are therefore described together.

Claim 1 recites a diagnostic system 10 for a data acquisition system 30 that includes a computer controller 14 and a display device 22. The computer controller 14 is coupled to the data acquisition system 30. The display device 22 is coupled to the computer controller 14. The controller 14 receives data from the data acquisition system 30 and diagnoses a problem in response to the data. The controller 14 generates a first screen display 50 that corresponds to a schematic representation of the data acquisition system 30. The controller 14 also generates a screen indicia on the display device 22 that corresponds to a location of a problem on the schematic representation of the data acquisition system 30. The controller 14 generates a second screen display 70 that comprises a boxplot illustrating normalized raw data, which corresponds to the schematic representation. See pages 3-4, paragraphs [0014]-[0015] and [0018]-[0020] of the specification and Figures 1-4.

Claim 7 recites a system that includes a diagnostic system 10 and a data acquisition system 30, which is coupled to the diagnostic system 10. The system of claim 7 further includes a computer controller 14 and a display device 22 similar to that of claim 1. See page 3, paragraphs [0014]-[0015] of the specification and Figure 1.

Claim 16 recites a method for operating a diagnostic system 10 that includes receiving data from a data acquisition system 30 and diagnosing a problem in response to the data. A first screen display 50 is generated that corresponds to a schematic representation of the data acquisition system 30. A screen indicator 60 is generated on the display device 22 that corresponds to a location of a problem on the schematic representation of the data acquisition system 30. A second screen display 70 is generated and includes a boxplot 60 that illustrates normalized raw data, which corresponds to the schematic representation. See pages 3-4, paragraphs [0015] and [0017]-[0019] of the specification and Figures 1-4.

The diagnostic systems and method of claims 1, 7, and 16 allow for a system to be diagnostically tested or monitored and accessed remotely. The systems and method further allow for quick and easy identification and location

determination of a fault, error, or problem in the system. Such identification and location determination minimizes the need to interpret a vast amount of data. This is especially helpful in data acquisition systems, data acquisition circuits, computed tomography systems, or other complex systems or circuits. See paragraphs [0007] and [0021] of the specification.

Applicants admit that the prior art has included the use of data acquisition systems. Applicants also admit that the prior art has included a diagnostic system for displaying an image of a machine and an image of a component within that machine, the machine being one in a manufacturing environment. Applicants also admit that boxplots exist. What is not known or suggested are the several novel limitations recited in claims 1, 7, and 16 and associated aspects thereof, which are utilized in combination. All of the novel limitations of claims 1, 7, and 16 are not taught or suggested by the prior art separately or in combination. The limitations are stated in detail below.

What is not known or suggested is a diagnostic system for a data acquisition system that includes a controller that generates a first screen display, which corresponds to a schematic representation of the data acquisition system. As such, what is also not known or suggested is a controller that generates a screen indicia on the display device, which corresponds to a location of a problem on the schematic representation of the data acquisition system. In addition, what is further not known or suggested is a controller that generates a second screen display with a boxplot that illustrates normalized raw data, which corresponds to the schematic representation.

What is also not known or suggested are the several novel limitations and combinations that are further recited in dependent claims 2-6, 8-15, and 17-23. The limitations are stated in detail below.

Claim 2 recites the diagnostic system of claim 1 wherein the data is stored in a memory 18. See page 3, paragraph [0014] of the specification and Figure 1.

Claim 3 recites the diagnostic system of claim 1 and further including a network 36 coupling the computer controller 14 and the data acquisition system 30. See page 3, paragraph [0015] of the specification and Figure 1.

Claim 4 recites the diagnostic system of claim 1 wherein the network 36 includes a public service telephone network. See page 3, paragraph [0015] of the specification and Figure 1.

Claim 5 recites the diagnostic system of claim 4 wherein the network 36 includes the Internet. See page 3, paragraph [0015] of the specification and Figure 1.

Claim 6 recites the diagnostic system of claim 1 wherein the controller 14 has a web browser, the controller 14 generates the screen indicia through the web browser.

Claim 8 recites a computed tomography system that includes a system as recited in claim 7.

Claim 9 recites the system of claim 7 and further includes a computed tomography system, the data acquisition system 30 is disposed with the computed tomography system.

Claim 10 recites the system of claim 9 wherein the computed tomography system includes a detector assembly, the data acquisition system 30 disposed within the detector assembly.

Claim 11 recites the system of claim 7 wherein the data is stored in a memory 18. See page 3, paragraph [0014] of the specification and Figure 1.

Claim 12 recites the system of claim 7 wherein the data is communicated from the data acquisition system 30. See page 3, paragraph [0015] of the specification and Figure 1.

Claim 13 recites the system of claim 7 wherein the data acquisition system 30 is located remotely from the diagnostic system 10.

Claim 14 recites the system of claim 7 further including a network 36 that couples the computer controller 14 and the data acquisition system 30. See page 3, paragraph [0015] of the specification and Figure 1.

Claim 15 recites the system of wherein the controller has a web browser, the controller 14 generates the screen indicia through the web browser.

Claim 17 recites the method of claim 16 wherein receiving data comprises receiving data through an interface 36. See page 3, paragraph [0015] of the specification and Figure 1.

Claim 18 recites the method of claim 16 wherein receiving data comprises remotely receiving data.

Claim 19 recites the method of claim 16 wherein the data is communicated from the data acquisition system 30. See page 3, paragraph [0015] of the specification and Figure 1.

Claim 20 recites the method of claim 16 wherein the data acquisition system 30 is disposed within a CT system.

Claim 21 recites the method of claim 16 wherein the boxplot 60 is colored to indicate passed or failed data. See page 4, paragraph [0018] of the specification.

Claim 22 recites the system of claim 7 wherein the boxplot 60 is colored to indicate passed or failed data. See page 4, paragraph [0018] of the specification.

Claim 23 recites the method of claim 16 and further includes coloring the boxplot 60 to indicate passed or failed data. See page 4, paragraph [0018] of the specification.

## **VI      Grounds of Rejection to be Reviewed on Appeal**

The following issues are the only issues presented in this appeal, which correspond directly to the Examiner's final grounds for rejection in the Final Office Action of January 11, 2006, hereinafter referred to as the "Final Office Action". Applicants note that in the Final Office Action claim 19 is not listed in the rejection of paragraph 1 page 1, but is argued on page 2. Also, claim 6 is listed in the rejection of paragraph 1 page 1 of the Final Office Action, but is not argued until the rejection of paragraph 3. In addition, although claim 8 is listed in the rejection of paragraph 1 page 1, it is not argued. Applicants assume that claim 6 is rejected in view of the references cited in paragraph 3, but is argued as being both rejected in view of the references of paragraphs 1 and 3. The issues coincide with paragraphs 1-3 of the Final Office Action and are:

- (1) whether claims 1-8, 16-17, and 19 are patentable under 35 U.S.C. 103(a) over Schleiss (U.S. Pat. No. 6,298,454) in view of Williams (U.S. Pat. No. 5,754,451) and Gerald E. Dallal (<http://www.tufts.edu/~gdallal/plots.htm>);
- (2) whether claims 9-14, 18, and 20-23 are patentable under 35 U.S.C. 103(a) as being unpatentable over Schleiss in view of Williams and Dallal, and further in view of Taguchi et al. (U.S. Pat. No. 5,807,256); and
- (3) whether claims 6 and 15 are patentable under 35 U.S.C. 103(a) as being unpatentable over Schleiss in view of Howards Korritzinsky et al. (U.S. Pat. No. 6,598,011).

## VII Argument

### A. THE REJECTION OF CLAIMS 1-8, 16-17, and 19 UNDER 35 U.S.C. 103(a)

Claims 1-8, 16-17, and 19 stand fully rejected under 35 U.S.C. § 103(a) as being unpatentable over Schleiss in view of Williams and Dallal.

Since independent claims 1, 7, and 16 have similar limitations, arguments for their allowance are provided together below.

Schleiss discloses a diagnostic tool for a process control system 10. The diagnostic tool is used to detect problems within function blocks, devices, and loops that have items, such as in valves, valve positioners, switches, transmitters, and sensors. Applicants note that Schleiss fails to disclose a diagnostic system for detecting a problem within a data acquisition system.

The Final Office Action states that Schleiss fails to teach the limitations of a controller that generates a screen display, which corresponds to a schematic representation of a data acquisition system and the limitations of a screen indicia on the display device that corresponds to a location of a problem on the schematic representation of the data acquisition system. Applicants agree. The Final Office Action, however, states that Williams teaches the above-stated limitations. Applicants traverse.

Williams discloses a diagnostic system 10 for detection of faults in machines 12 of a manufacturing process. The diagnostic system 10 alerts an operator of a fault condition and graphically displays a location of the component within a machine to facilitate a correct measure by an operator. In alerting the operator, the diagnostic system 10 of Williams displays pictorial views, specifically an image of the machine including an image of the component therein. The component image is highlighted to indicate the fault condition.

Although Williams discloses providing a pictorial view of a component that has an associated fault, Williams fails to disclose the displaying of a schematic representation. Applicants submit that an image of a machine or of a component is substantially different than a schematic representation of a machine. An image, as described in Williams, is an overall picture of a machine. A schematic representation refers to a technical diagram that details the elements of a system in symbolic form and a layout of those elements. One skilled in the art would readily recognize the differences between a picture or image and a schematic representation. A sample schematic representation is shown in Figure 4 of the present application.

Since Williams clearly fails to teach or suggest the displaying of a schematic representation, Williams also fails to teach or suggest the displaying of a location of a problem on a schematic representation or the location of a problem on a schematic representation of a data acquisition system. There is no mention or suggestion of a schematic in Williams. Also, Williams is directed to detecting faults within equipment or machines of a manufacturing process, not to detecting faults within a data acquisition system. Thus, it would not have been obvious to combine Schleiss and Williams to provide a diagnostic system for the detection of faults within a data acquisition system and especially not as claimed.

The Final Office Action further states that Schleiss and Williams fail to teach the generating of a second screen display that includes a boxplot illustrating normalized raw data. Applicants agree. The Final Office Action,

however, states that Dallal teaches this feature. Applicants have admitted that Dallal discloses a boxplot. Dallal discloses several plotting techniques, which are described in general and are not directed to any particular industry or application.

Referring to MPEP 706.02(j), 2143, and 2143.01, to establish a *prima facie* case of obviousness, there must be some suggestion or motivation provided to combine and modify the references to arrive at the claimed invention and that the suggestion must be found in the prior art and not in Applicant's disclosure. The fact that references can be modified is not sufficient to establish *prima facie* obviousness, see *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Also, the fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness, see *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). There must be an objective reason to combine and modify the teachings of the references, as is necessary in the present case, to arrive at the claimed invention. Applicant submits that no such suggestion or object reason is provided in any of the above relied upon references or in the Office Actions. There is no suggestion or desire disclosed in either Schleiss or Williams for a boxplot nor is there any suggestion in Dallal to utilize a boxplot in displaying faults associated with a data acquisition system or in displaying faults in a diagnostic system. Although it is stated in Dallal that boxplots may be used for large data sets that is insufficient motivation to use a boxplot in a system for diagnostic faults within a data acquisition system. There is no mention of a display type or of a diagnostic system in Dallal. Besides, there is clearly no motivation or suggestion in using a boxplot, which corresponds to a schematic representation. There is no mention of a schematic representation in Dallal, Schleiss, or Williams.

The Examiner should not glean information from the present application when combining the stated references. Applicants are aware that hindsight reasoning is proper so long as it takes into account only knowledge which was within the level of ordinary skill at the time of the claimed invention was made and does not include knowledge gleaned only from the Applicants' disclosure.

Applicants believe that to arrive at a conclusion of obviousness, especially in view of the above relied upon references, can only be made through the gleaning of knowledge from Applicants' disclosure. It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1386, 59USPQ2d at 1697 (Fed. Cir. 2001). The facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amendable to the taking of such notice. *In re Eynde*, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973). Ordinarily, there must be some form of evidence in the record to support an assertion of common knowledge. General conclusions concerning what is "basic knowledge" or "common sense" to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection. *Lee*, 277 F.3d at 1344-45, 61 USPQ2d at 1434-35 (Fed. Cir. 2002). The Examiner must provide specific technical and scientific reasoning to support his or her conclusion of common knowledge. *In re Soli*, 317 F.2d at 946, 37 USPQ at 801 (CCPA 1963). Applicant submits that no specific factual findings or concrete evidence has been put forth nor has any specific technical reasoning been put forth to support an assertion of common knowledge.

Referring to MPEP 706.02(j) and 2143, to establish a *prima facie* case of obviousness the prior art reference(s) must teach or suggest all the claim limitations, see *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Since Schleiss, Williams, and Dallal fail to teach or suggest several limitations of claims 1, 7, and 16, claims 1, 7, and 16 are believed to be independently patentable and allowable for the above-stated reasons.

Claim 2 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 1. Claim 2 is further believed to be independently patentable and allowable since it further recites wherein the data is stored in a memory 18.

Claim 3 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 1. Claim 3 is further believed to be independently patentable and allowable since it further recites a network 36 coupling the computer controller 14 and the data acquisition system 30.

Claim 4 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 1. Claim 4 is further believed to be independently patentable and allowable since it further recites wherein the network 36 includes a public service telephone network.

Claim 5 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 1. Claim 5 is further believed to be independently patentable and allowable since it further recites wherein the network 36 includes the Internet.

Claim 6 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 1. Claim 6 is further believed to be independently patentable and allowable since it further recites wherein the controller 14 has a web browser, the controller 14 generates the screen indicia through the web browser.

Claim 8 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 7. Claim 8 is further believed to be independently patentable and allowable since it recites a computed tomography system that includes a system as recited in claim 7. None of the relied upon references teach or suggest a computed tomography system having a data acquisition system having the diagnostic capabilities claimed. Schleiss, Williams, and Dallal fail to disclose a computed tomography system. Also, as is explained in further detail below, although Taguchi discloses the use of a computed tomography system, Taguchi fails to disclose a diagnostic system for detecting a fault within a system, such as a data acquisition system. Taguchi discloses a system for diagnosing an abnormality within a patient. Also, there is no motivation or suggestion to modify and combine the stated references as needed to arrive at the invention of claim 8.

Claim 17 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 16. Claim 17 is further believed to be independently patentable and allowable since it further recites wherein receiving data comprises receiving data through an interface 36.

Claim 19 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 16. Claim 19 is further believed to be independently patentable and allowable since it further recites wherein the data is communicated from the data acquisition system 30.

**B. THE REJECTION OF CLAIMS 9-14, 18, and 20-23 UNDER 35 U.S.C. 103(a)**

Claims 9-14, 18, and 20-23 stand fully rejected under 35 U.S.C. § 103(a) as being unpatentable over Schleiss in view of Williams and Dallal and further in view of Taguchi.

See above argument with respect to Schleiss, Williams, and Dallal.

Taguchi discloses a medical information processing system for supporting diagnosis of a patient. The system of Taguchi is used to detect and to provide a diagnosis of patient abnormalities. As stated above, although Taguchi discloses the use of a computed tomography system, Taguchi fails to disclose a diagnostic system for detecting a fault within a system, such as a data acquisition system. A patient abnormality is clearly different than a data acquisition system fault. Applicants understand that information processing systems exist and are used to interpret data from a computed tomography system. However, this is irrelevant. The use of an information processing system does not provide any motivation to use a diagnostic system for detecting a problem within a data acquisition system in a computed tomography setting or to combine and modify the stated references as is needed to arrive at the claimed invention.

Claim 9 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 7. Claim 9 is further believed to be independently patentable and allowable since it further recites

including a computed tomography system, the data acquisition system 30 is disposed with the computed tomography system.

Claim 10 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 9. Claim 10 is further believed to be independently patentable and allowable since it further recites wherein the computed tomography system includes a detector assembly, the data acquisition system 30 disposed within the detector assembly.

Claim 11 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 7. Claim 11 is further believed to be independently patentable and allowable since it further recites wherein the data is stored in a memory 18.

Claim 12 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 7. Claim 12 is further believed to be independently patentable and allowable since it further recites wherein the data is communicated from the data acquisition system 30.

Claim 13 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 7. Claim 13 is further believed to be independently patentable and allowable since it further recites wherein the data acquisition system 30 is located remotely from the diagnostic system 10.

Claim 14 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 7. Claim 14 is further believed to be independently patentable and allowable since it further recites including a network 36 that couples the computer controller 14 and the data acquisition system 30.

Claim 18 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 16. Claim 18 is further believed to be independently patentable and allowable since it further recites wherein receiving data comprises remotely receiving data.

Claim 20 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 16. Claim 20 is further

believed to be independently patentable and allowable since it further recites wherein the data acquisition system 30 is disposed within a CT system.

Claim 21 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 16. Claim 21 is further believed to be independently patentable and allowable since it further recites wherein the boxplot 60 is colored to indicate passed or failed data.

Claim 22 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 7. Claim 22 is further believed to be independently patentable and allowable since it further recites wherein the boxplot 60 is colored to indicate passed or failed data.

Claim 23 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 16. Claim 23 is further believed to be independently patentable and allowable since it further recites including the coloring of the boxplot 60 to indicate passed or failed data.

### **C. THE REJECTION OF CLAIMS 6 AND 15 UNDER 35 U.S.C. 103(a)**

Claims 6 and 15 stand fully rejected under 35 U.S.C. § 103(a) as being unpatentable over Schleiss in view of Howards Korritzinsky.

See the above arguments with respect to Schleiss.

Howards Korritzinsky discloses a service system 10, which is utilized to remotely access patient diagnostic systems 14-18. The service system 10 includes service facilities 20-24 that access the patient diagnostic systems 14-18 via a server that has a browser. Howards Korritzinsky, like Taguchi, does not disclose a diagnostic system for detecting a fault within a data acquisition system or the like. Although Howards Korritzinsky discloses the use of a web browser, such use is directed to the transfer of information between a service facility and a patient diagnostic system, such as a MRI system. The web browser is not used to display screen indicia on a diagnostic system for a data acquisition system, as recited in claims 6 and 15. Howards Korritzinsky is not relevant to the claimed invention.

Thus, it would not have been obvious to combine the teachings of Howards Korritzinsky with Schleiss. Also, the combination would not allow one to arrive at the present invention without needed modifications.

Claim 6 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 1. Claim 6 is further believed to be independently patentable and allowable since it further recites wherein the controller 14 has a web browser, the controller 14 generates the screen indicia through the web browser.

Claim 15 is believed to be independently patentable and allowable for the reasons set forth above and since it depends from claim 7. Claim 15 is further believed to be independently patentable and allowable since it further recites wherein the controller 14 has a web browser, the controller 14 generates the screen indicia through the web browser.

### **VIII Appendix**

A copy of the claims involved in this Appeal, namely claims 1-23, is attached hereto as Appendix A. An evidence Appendix B and a related proceedings Appendix C are also provided.

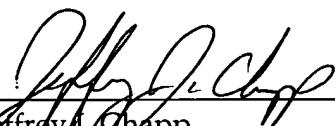
**IX Conclusion**

For the reasons advanced above, Appellant respectfully contends that each claim is patentable. Therefore reversal of the rejection is requested.

Respectfully submitted,

ARTZ & ARTZ, P.C.

By: \_\_\_\_\_



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Dated: June 9, 2006

## APPENDIX A

What is claimed is:

1. A diagnostic system for a data acquisition system comprising:  
a computer controller coupled to the data acquisition system; and  
a display device coupled to the computer controller;  
said controller receiving data from said data acquisition system,  
diagnosing a problem in response to said data, said controller generating a first  
screen display corresponding to a schematic representation of the data  
acquisition system, said controller generating a screen indicia on said display  
device corresponding to a location of a problem on the schematic representation  
of the data acquisition system, said controller generating a second screen display  
comprising a boxplot illustrating normalized raw data corresponding to the  
schematic representation.
2. A diagnostic system as recited in claim 1 wherein said data is  
stored in a memory.
3. A diagnostic system as recited in claim 1 further comprising a  
network coupling said computer controller and said data acquisition system.
4. A diagnostic system as recited in claim 3 wherein said network  
comprises a public service telephone network.
5. A diagnostic system as recited in claim 3 wherein said network  
comprises the Internet.
6. A diagnostic system as recited in claim 1 wherein said controller  
has a web browser, said controller generating the screen indicia through said  
web browser.

7. A system comprising:
  - a diagnostic system;
  - a data acquisition system coupled to the diagnostic system;
  - a computer controller coupled to the data acquisition system;
  - a display device coupled to the computer controller;said controller receiving data from said data acquisition system, diagnosing a problem in response to said data, said controller generating a first screen display corresponding to a schematic representation of the data acquisition system, said controller generating a screen indicia on said display device corresponding to a location of a problem on the schematic representation of the data acquisition system, said controller generating a second screen display comprising a boxplot illustrating normalized raw data corresponding to the schematic representation.
8. A computed tomography system comprising a system as recited in claim 7.
9. A system as recited in claim 7 further comprising a computed tomography system, the data acquisition system is disposed with the computed tomography system.
10. A system as recited in claim 9 wherein the computed tomography system comprises a detector assembly, said data acquisition system disposed within said detector assembly.
11. A system as recited in claim 7 wherein said data is stored in a memory.
12. A system as recited in claim 7 wherein said data is communicated from said data acquisition system.

13. A system as recited in claim 7 wherein said data acquisition system is located remotely from said diagnostic system.

14. A system as recited in claim 7 further comprising a network coupling said computer controller and said data acquisition system.

15. A system as recited in claim 7 wherein said controller has a web browser, said controller generating the screen indicia through said web browser.

16. A method for operating a diagnostic system comprising:  
receiving data from a data acquisition system;  
diagnosing a problem in response to said data;  
generating a first screen display corresponding to a schematic representation of the data acquisition system;  
generating a screen indicator on said display device corresponding to a location of a problem on the schematic representation of the data acquisition system; and  
generating a second screen display comprising a boxplot illustrating normalized raw data corresponding to the schematic representation.

17. A method as recited in claim 16 wherein receiving data comprises receiving data through an interface.

18. A method as recited in claim 16 wherein receiving data comprises remotely receiving data.

19. A diagnostic system as recited in claim 1 wherein said data is communicated from said data acquisition system.

20. A method as recited in claim 16 wherein said data acquisition system is disposed within a CT system.

21. A diagnostic system as recited in claim 1 wherein the boxplot is colored to indicate passed or failed data.

22. A system as recited in claim 7 wherein the boxplot is colored to indicate passed or failed data.

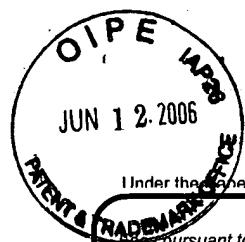
23. A method as recited in claim 16 further comprising coloring the boxplot is colored to indicate passed or failed data.

**APPENDIX B**

No submitted or entered evidence.

**APPENDIX C**

No related proceedings.



JUN 1 2 2006

PTO/SB/17 (12-04v2)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

Effective on 12/08/2004.  
Pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

# FEE TRANSMITTAL For FY 2005

Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** (\$ 500.00)

**Complete if Known**

Application Number	10/064,128
Filing Date	June 13, 2002
First Named Inventor	Claude Scher
Examiner Name	Mohamed Charioui
Art Unit	2857
Attorney Docket No.	125755 (GEMS 0160 PUS)

**METHOD OF PAYMENT** (check all that apply)

Check  Credit Card  Money Order  None  Other (please identify): \_\_\_\_\_  
 Deposit Account Deposit Account Number: 07-0845 Deposit Account Name: GTC

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

Charge fee(s) indicated below  Charge fee(s) indicated below, except for the filing fee  
 Charge any additional fee(s) or underpayments of fee(s)  Credit any overpayments

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**FEE CALCULATION**

**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	
				Fee (\$)	Fee Paid (\$)
- 20 or HP =	x	=		50	25
HP = highest number of total claims paid for, if greater than 20.				200	100

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
- 3 or HP =	x	=				

HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Appeal Brief 500.00

**SUBMITTED BY**

Signature		Registration No. (Attorney/Agent) 50,579	Telephone 248-223-9500
Name (Print/Type)	Jeffrey J. Chapp		Date June 9, 2006

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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